Work Order September-27-13 1:	.00.56 PM	r				*10	76	82*	<b>.</b>						Page 1
Revision ID:  Item Name: Sad	935 Idle Spacer 7/13 7/13	Start Qty: Req'd Qty:	12. <b>0</b> 0	9 <sup>35</sup> 0 <sup>768</sup>	v *12* *12*	Accept	*	Cust Item Customer:		100	)*	Setup	Start Stop	1.71	S1* S2*
Reference:	······································				Marketon Art.							Run	Start	: <b>*</b> NI	D4*
		n:MC3			3-09-30				ate: ate:				Stop	171	R1* R2*
Sequence ID/ Work Center ID		Operation Description				Set Up/ Run Hours		Tool ID	Tool #	Plan Code	Accep Qty	t Re	eject ty	Reject Number	Insp. Stamp
Draw Nbr	Revi	ision Nbr													
D2935	Rev	В													
100 *100* Waterjet		FLOW WATE	R JET			0.00					19				Jm13-10-27
FLOW CNC Waterjet		D <sup>i</sup> Pr	Cut as per wg Rev: og Rev: Deburr if	Dwg D2935 B B necessary											
. 110		QC2- Inspect p	oarts off m	achine FAI/F	AIB	0.00									
*110* QC Quality Control		М	lemo			0.00					_12		۵		Jm13-10-27
120 * <b>1</b> *2 <b>0</b> * oc		QC8- Inspect p	oarts - seco	and check		DAS 27 9-89	K)				10	<del></del> -			

Quality Control

NCR: Ye	es / No				WORK ORDER NON-	CONF	ORN	MANCE / UP	DATE			
<u>.</u>										QA Closed:	Date:	
Work Orde	r:				DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
					Rework			Skid-tube	Crosstube		Water Jet	Engineering
Part N	0		*		Scrap		ľ	Machining	Small Fab	Pro	d. Eng. Coor.	Quality
					Use-as-is	]   1		noforming	Finishing	Rec/Stor	re/Packaging	Other
NCR N	0				Work Order Update	]		Large Fab	Composite	]	Supplier	
Root				Descri	ption of work order update	Init	tial	Ac	tion	Sign &	·	
Cause	Date	Step	Qty		or Non-conformance	Chief	f Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator												
Material							•					
Setup												
Other											-	
Process							-					<u> </u>
Supplier												
Training					•							
Unapproved		<u> </u>								,		
					F	AULT	CATE	GORY				
Landin	g Gear			_	General				_	, 1	<u></u>	7
-	Bending			_	Bend	$\mathbf{H}$	rain			Ovalized		Pressure/Forced
<u> </u>	Centre No	ot Concer	ntric to C	<sup>D/S</sup>  _	BOM/Route	$\vdash$	ardwa		<u> </u>	Over/Under	<u> </u>	Temperature/Cure
-	Cracks			_	Broken/Damaged	-	-	on Incomplete		Part Incorre	<b> </b>	Weld
-	Crushed/	Crimped.		$\vdash$	Burrs	_		ions Incomplete/	'Unclear	Part Lost/Mi	issing	Wrong Stock Pulled
-	Cuffs			_	Contamination			nance	<u> </u>	Part Moved		
1	Heat Trea			<u> </u>	Countersink	<b>-</b>	lislabe		<u></u>	Positioned V	_	٦
<u> </u>	Inspection	•	Tube	<u> </u>	Cut Too Short	$\boldsymbol{\vdash}$	lisreac	i		Power Loss/	Surge	Other
<u> </u>	Ripples in				Drill Holes	$\vdash$	ffset					
l	Torque W	laves in E	extrusion		Drawing		ut of (	Calibration				

Out of Sequence

Outside Dimensions

Date:

DQA:

Turning Sequence

Wave/Twist in Tube

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

(X	Jorla	Orda	· ID	107682	)
V١	V OFK	Oraei	עני	10/004	4

Packaging

Packaging

Memo

Page 2 September-27-13 1:09:56 PM \*N900040100\* Accept D2935 Item ID: Setup Start **Revision ID:** Saddle Spacer Item Name: **Start Date:** 9/27/13 **Start Qty: 12.00 Cust Item ID:** Required Date: 9/27/13 Req'd Qty: 12.00 **Customer:** Reference: Run Date: \_\_\_\_\_ Tooling: Approvals: Process Plan: Date: Stop SPC (Y/N): QC: Date: Date: Sequence ID/ Set Up/ **Tool ID** Tool # Plan Reject Reject Operation Accept Insp. Qty Qty **Work Center ID** Description **Run Hours** Code Number Stamp Chemical Conversion Coat per QSI005 4.1 0.00 130 12 7/13-10-30 \*130\* HandFinish 0.00 Memo Hand Finishing DAS 27 Inspect Part Finish 0.00 140 OC Memo Quality Control Identify as per dwg & Stock Location: 57022 0.00 150 \*150\* 0.00

										DQA:	Date:	
NCR:	res / No				WORK ORDER NON-	-COI	NFORM	AANCE / UP	DATE			
							,,			QA Closed:	Date:	
Work Orde	ar.				DISPOSITION				AGAINST DE	PARTMENT,	/PROCESS	
WOIK OIG		<u> </u>			Rework	7		Skid-tube	Crosstube	1	Water Jet	Engineering
Part N	No.				Scrap		1	Machining	Small Fab	Pro	d. Eng. Coor.	Quality
		·····			Use-as-is	<b>-</b>	I	noforming	Finishing	1	re/Packaging	Other
NCR N	No				Work Order Update			Large Fab	Composite		Supplier	
Root		1		Descri	ption of work order update		Initial	Ac	tion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	- 1	nief Eng		ription	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling	-											
Operator		ĺ				-						
Material						1						
Setup												
Other								-				
Process												
Supplier				•								
Training												•
Unapproved												
						FAUI	LT CATE	GORY				
Landi	ng Gear				General	_	-			-		-
	Bending				Bend		Grain			Ovalized		Pressure/Forced
	Centre N	ot Conce	ntric to (	D/S	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld
	Crushed/	Crimped.			Burrs		Instruct	ions Incomplete/	Unclear	Part Lost/M	issing	Wrong Stock Pulled
	Cuffs				Contamination		Mainte	nance		Part Moved		
	Heat Tre	at			Countersink		Mislabe	led		Positioned \	Wrong	-
	Inspection	n Strip in	Tube		Cut Too Short		Misread	I		Power Loss/	'Surge	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Ord September-27-				*107	7682*							Pag	ge 3
Item ID: Revision ID: Item Name:	D2935 Saddle Space	ner .		Accept	*N900	<b>040</b>	100	)*	Setup	Start Stop	1/1	S1*	
Start Date: Required Date Reference:	9/27/13	Start Qty: 12.00 Req'd Qty: 12.00	*12* *12*		Cust Item I Customer:	D:					IN	5/	
Approvals:	Process F	Plan:	Date:	Tooling: SPC (Y/N):		ate:		1	Run	Start Stop	17	R1*	¢
Sequence ID/ Work Center 160 *160* QC Quality Control	ID	Operation Description QC21- Final Inspection -	Work Order Release	Set Up/ Run Hours 0.00	Tool ID	Tool #	Plan Code	Accept Qty	Re Qt	-	Reject Number	Insp. Stamp	3

		DQA:	Date:	
NCR: Yes / No	WORK ORDER NON-CONFORMANCE / UPDATE			
		OA Clasadi	Data	

									QA Ciosea:	Date	-
Work Orde	er:		·-		DISPOSITION			AGAINST DEI	PARTMENT	PROCESS	
Part N	lo				Rework Scrap Use-as-is		Skid-tube Machining moforming	Crosstube Small Fab Finishing		Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR N	lo		·- · · · · · · · · · · · · · · · · · ·		Work Order Update		Large Fab	Composite		Supplier	
Root				Descri	ption of work order update	Initial	Act	ion	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief Eng	Descr	ription	Date	Verification	QC Inspector
Doc/Data											
Equip/Tooling											
Operator	_										
Material										:	
Setup	_										
Other	_			•							
Process											
Supplier	_										
Training	_										
Unapproved		<u> </u>				<u> </u>					
		· · · · · · · · · · · · · · · · · · ·				AULT CATE	GORY				
Landir r	ng Gear				General	П			1		¬ .
	Bending		-	.	Bend	Grain			Ovalized	<u> </u> _	Pressure/Forced
	Centre N	ot Concer	ntric to C	D/S	BOM/Route	Hardwa			Over/Under	<del> </del>	Temperature/Cure
	Cracks			<u> </u>	Broken/Damaged	$\vdash$	ion Incomplete		Part Incorre	<b>)</b>	Weld
	Crushed/	Crimped,		<u> </u>	Burrs	<b>⊢</b>	tions Incomplete/l	Jnclear	Part Lost/Mi	issing	Wrong Stock Pulled
	Cuffs			-	Contamination	<del></del>	enance	<u> </u>	Part Moved		
	Heat Trea			<u> </u>	Countersink	Mislab		<u> </u>	Positioned V		<b>-</b> 1
	Inspectio	•	Tube		Cut Too Short	Misrea	đ		Power Loss/	Surge	Other
	Ripples in			<u> </u>	Drill Holes	Offset	C 111				
	Torque W			' . <del> </del>	Drawing	<b></b>	Calibration				
	Turning S	•		<u> </u>	Finish	<del></del>	Sequence				
1	Wave/Tw	ist in Tub	oe -		Folio	Outside	e Dimensions				

## **Picklist Print**

September-27-13 1:09:56 PM

Work Order ID:

107682

Parent Item:

D2935

Parent Item Name:

Saddle Spacer

Saddle Spacer

**Start Date:** 9/27/13

Required Date: 9/27/13

Page 1

**Start Qty: 12.00** 

Required Qty: 12.00

Comments:

IPP A00.06.06New IssueEC

IPP Rev:B Now 6061-T6 06-06-23 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6S.080 6061-T6 .080 Sheet		Purchased	No			100	sf	601.1080	0.0507	0 <del>.64042</del> 08		Jm13.	10.37
				<b>Location</b>		Loc Qty	Lo	c Code					
				MAT021		601.108							
				125	812	32.75							
				m12	6309	363.5			126	<u> 309</u>			
				m12	6350	204.858							

NCR: Yes / No	WORK ORDER NON-CONF	DQA:	Date:
Trent. Tes y tro		QA Closed	: Date:
Work Order:	DISPOSITION	AGAINST DEPARTMENT	r/PROCESS
Part No.	Rework	Skid-tube Crosstube Pro	Water Jet Engineering Ouglity

Part No.				Scrap	]	Machining Small Fab			d. Eng. Coor.	Quality	
					Use-as-is	The	rmoforming	Finishing	Rec/Sto	re/Packaging	Other
NCR No	)				Work Order Update	J	Large Fab	Composite		Supplier	
Root				Descrip	otion of work order update	Initial	<i>P</i>	Action	Sign &		
Cause	Date	Step	Qty	0	r Non-conformance	Chief En	g De:	scription	Date	Verification	QC Inspector
Doc/Data										:	
quip/Tooling											
Operator	_										
Material	_		<b>!</b>			i i				-	
etup	_										·
Other	_					1					
rocess	_										
Supplier -	_										
Fraining	_										
Unapproved		<u> </u>								l	
						AULT CAT	EGORY				
Landing	_				General	<u> </u>		r	<b>–</b>	г	
-	Bending				Bend	Grain		-	Ovalized		Pressure/Forced
<u> </u>	-	ot Conce	ntric to O/		BOM/Route	Hardy		-	Over/Under	<u>}</u>	Temperature/Cure
<u> </u>	Cracks			<del></del>	Broken/Damaged	<b>—</b>	ction Incomplete	<del></del>	Part Incorre	<b>-</b>	Weld
		/Crimped			Burrs	<b>-</b>	ctions Incomplet	e/Unclear	Part Lost/M		Wrong Stock Pulled
L	Cuffs				Contamination	<b>—</b>	tenance	-	Part Moved		
<u> </u>	Heat Tre			—	Countersink	Misla		-	Positioned \	· r	
<u> </u>	<b>⊣</b> `	n Strip in	Tube		Cut Too Short	Misre		L	Power Loss,	/Surge	Other
			Drill Holes	Offse							
Torque Waves in Extrusion				Drawing	Out of Calibration						
Turning Sequence					Finish	Out of Sequence					
Wave/Twist in Tube				]	Folio	Outsi	de Dimensions				

DART AEROSPACE LTD	Work Order:	107682
Description: Saddle Spacer	Part Number:	D2935
Inspection Dwg: D2935 Rev: B		Page 1 of 1

## FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

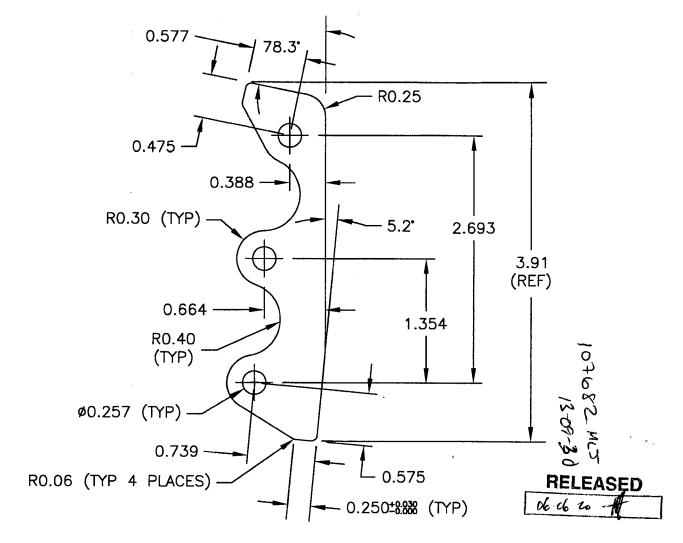
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.257	+0.006/-0.001	0.928,			V	James
3.91	+/-0.030	3.91"			V	
1.354	+/-0.010	1.354"	-		V	
2.693	+/-0.010	2.693"	-		V	
0.250	+/-0.010	0.360			V	
R0.25	+/-0.030	0.25"	_		RG	
				·		

Measured by: Jm	Audited by:	DAS 27	Prototype Approval:	N/A
Date: 13-10-27.	Date:	B 10 20	Date:	N/A

Rev	Date	Change	Revised by	Approved
Α	06.06.05	New Issue	KJ/JLM	
В	06.06.23	Dwg Rev. changed	KJ/JLM	



	DESIGN	17	DRAWN BY	DART AEROSPACE US	A, INC.
-	CHECK		APPROVED ,	DRAWING NO.	REV. B
		PH	- THE	D2935	SHEET 1 OF 1
	DATE			TITLE	SCALE
	06.05.29			SADDLE SPACER	1:1
	Α		99.11.02	NEW ISSUE	
	В		06.05.29	ADD 6061-T6 MATERIAL	



## NOTES:

1) MATERIAL: 6061-T6 (PER QQ-A-250/11 OR AMS 4025 OR AMS 4027) 0.080" THICK (REF DART SPEC M6061T6S.080)

5052-H32/H34 (PER QQ-A-250/8 OR AMS 4016) 0.080" THICK

(REF DART SPEC M5052H32S.080)

- 2) FINISH: ACID ETCH AND ALODINE PER DART QSI 005 4.1
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) BREAK ALL SHARP EDGES 0.010 TO 0.020
- 5) ALL DIMENSIONS ARE IN INCHES

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